

Artists Using Science and Technology

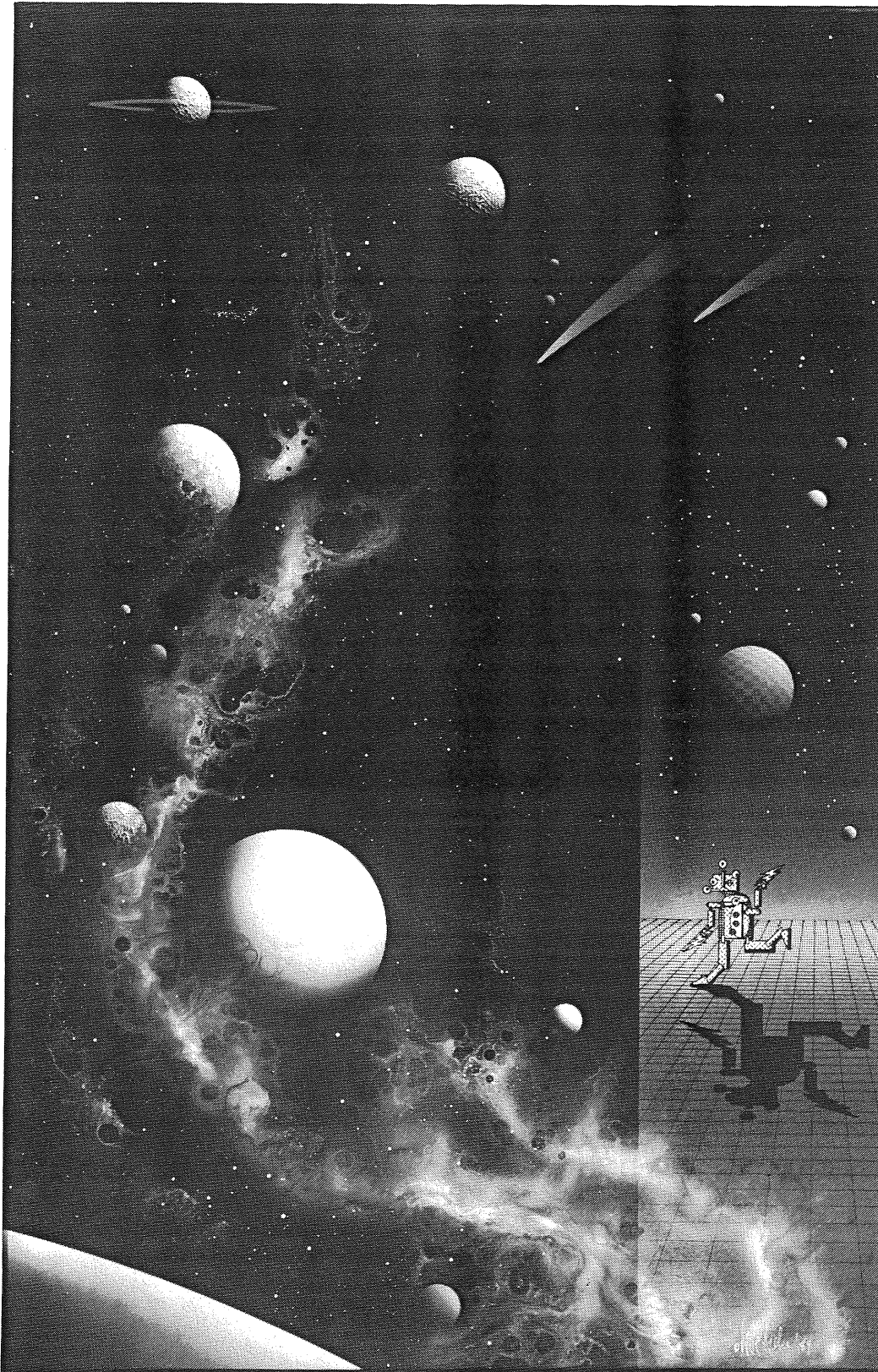
Ylem (Eye-lum): The exploding mass out of which the universe emerged in the Big Bang

Ylem Newsletter

Vol.12, No. 1

January 1992

A note to librarians: There is no "Vol. 11, No. 12." Our numbering system became misaligned two years ago, and we are now correcting it. There were 12 issues for 1991, beginning with Vol. 10, No. 12.



"Aerobix," electric painting and computer graphic by Dave Archer



Ylem in Five Years: Brainstorming by Board Members

From a discussion last September. Members' comments welcome!

Theo Ferguson: "Let's keep Ylem mostly artists, and design our program to advance them. We can use our clout to bring artists together with bigger players, like corporations...If we create great exhibit opportunities for artists, the artists will enhance Ylem's reputation in return."

Beverly Reiser: "We'll develop a larger market for our *Directory*. We'll develop a market for work by the members by exhibits, sales and conferences."

Steve Wilson: "Some think in terms of Ylem marketing itself, but I think in terms of teaching the public. How can we involve ordinary people who don't even know they're interested in this kind of art yet?...Being a community of artists is important. We're like Paris in 1910! Having chapters so more members can meet each other is helpful."

He mentioned that *Telecommunication as an Art Form* is the theme of SIGGRAPH '92. Ylem could plan something like a West Coast teleconference link to it.

Trudy Myrrh Reagan: "With exhibits Ylem could show the general public what is happening, or perhaps an electronic art event. What it takes for new art to be accepted are people like our member Daria Barclay in Portland who stage lots of exhibits where people will see them."

Earlier, by phone, Louis Brill had told Trudy: "I can sum up what Ylem needs in one word: *Money*." The thrust of his argument was that if the money were there Ylem would have the paid staff and wiggle-room to take on projects like the teleconference with SIGGRAPH without agony. We could enhance Ylem's reputation while having some state-of-the-art fun, make videos of Ylem Forums to sell, and perhaps open a gallery.

Theo: "Electronic art, which Americans are so good at, is *honored* in Europe, like jazz. Take advantage of the situation like jazz musicians. They have trouble getting gigs at home, so they set up a European tour to pay the bills. We already meet with colleagues in Europe, but we could arrange to do a travelling show or event for the general public. Europeans have a sense of electronic art

Ylem Business Meeting Wednesday, January 22, 7:30

We will set Ylem's course for 1992. All Welcome. Your ideas are needed for programs, publicity, publications, exhibits, networking and getting new members, so please come! At the home of Gary Zellerbach, **18 Bonview St, San Francisco**. Call Ylem President **Beverly Reiser, (510) 482-2483** for more information and directions.

being a unique contribution to culture that Americans don't. *Ylem is a community of artists in tune with technology creating culture!*"

Gary Zellerbach: "If Ylem gets too big and successful it will drive you crazy with paperwork, hiring people. Do we want this?" No one did.

Russell Reagan: "Membership in the thousands isn't what we need, but a larger membership would enable us to have a bigger newsletter with a paid production staff and more color issues...Better that many people internationally *know of Ylem* (that Ylem be 'on the map')." The eccentric 1-page publication, *AGAR*, by former member Steve s'Sorreff is well-known in this way.

Trudy proposed a goal of between 500 and 1000 members—enough to hire someone to do our publications. She said that the Friends of Calligraphy's 500 members support the beautiful magazine, *Alphabet*.

Gary: "I see two thrusts here, building membership and promoting members as artists."

Eleanor Kent: "People join for many reasons. How do we find and get to know each other in order to get what we need out of it?"

Cynthia Kurtz: "I foresee Ylem chapters throughout the United States, with some in foreign countries. The Bay Area be like a 'home chapter.' These connections will provide strong and friendly connections for local networking to our far-flung members."

Eleanor: "Networking and chatting by modem is another way. I hope more people will get on-line. Whatever we do, it's important to have *fun* while doing our projects."

Some Historical Perspective on Art of the Cosmos

by Beth Avary

There is no way of knowing when the first people turned their eyes to look up at the stars, but it is reasonable to suppose that this response to our environment slowly evolved along with our brains. It could have been two million years ago, when we find first evidence of tools and when it is believed that the area of the brain for speech had developed. We know certainly that some of the earliest art was done between fifteen and thirty thousand years ago when people discovered that they could communicate with objects in their hands and the first artist came into being.

These people conveyed their ideas by drawing and painting on the walls of caves or moulding simple figures out of clay. They sought to express the ways and ideas of their society. This means of communication is still alive today and the artist's expressions and interpretations are still, as in ancient times, shaped by current religious, philosophical or scientific beliefs and often by a combination of these. In this way their work reflects the world view of their time.

Many of us who live in the cities have lost touch with the night sky because the lights of civilization obstruct our view. We have also lost the need to study the sky in the way of our ancestors. We have watches to tell us the time day or night, newspapers to remind us when the solstices will be, and weather forecasters to tell us if it will be a good year for crops. Ancient people learned these things from the sky; they needed to study the sky in order to survive.

One way these ancient people sought to understand the universe was through personification of the forces of nature. A stone relief carving from ancient Egypt shows Nut, the sky goddess, bending over the earth in a manifestation of the heavens. According to legend, "She was the mother of RE, the sun, whom she swallowed at night and gave birth to in the morning."

Continued

Ylem Forum: Artists and the Cosmos

Wednesday, January 8, 8 pm

**McBean Theatre, The Exploratorium,
3601 Lyon St., San Francisco**

Note: This is not a free night at the museum. General admission to the Exploratorium, \$7. To go to the forum without charge, turn left before the main entrance and go directly into the theatre by a back door.

Program:

"A Grand Tour of the Universe"

With **Andrew Fraknoi**, astronomer and Executive Officer, Astronomical Society of the Pacific, and professor at San Francisco State University

In this non-technical talk, Fraknoi will show the latest images from the world's largest telescopes and space probes for a *grand tour* of the cosmos as astronomers understand it today. Beginning with the planets and satellites in our solar system—most of which have been explored close-up by US and Soviet probes—and moving out into the realm of the stars, he will discuss the many alien environments which we

have discovered and the cosmic forces which have shaped them over the eons. The program will conclude with a look at the distant reaches of the universe, where galaxies and quasars as numerous as the grains of sand on a beach stretch as far as our telescopes can help us see.

Andrew Fraknoi



"Art of the Cosmos"

Beth Avary, painter and Exhibitions Director for the International Association for Astronomical Arts (IAAA), will show the sixty-three cosmic artworks that make up the travelling exhibit she curated, "Art of the Cosmos," now at the Hayden Planetarium in New York. She also worked on the IAAA exhibit that recently toured the Soviet Union which is now at the National Air and Space Museum. She has won many awards, illustrated several science fiction books and is a member of the Association of Science Fiction and Fantasy artists. An example of her work is shown here.

"Galactiscape," painting by Beth Avary



Lobby art show:

Computer artists **Bill Henderson** and **Mike Mosher**, Space-related works by **Myrrh** and **Therese M. Lahaie**, displays by **Holography Institute** and the **Computer Arts Institute**.

Upcoming Forums— Mark your Calendar!

March 4, May 6, July 1,
September 2, November 4

Perspective, continued

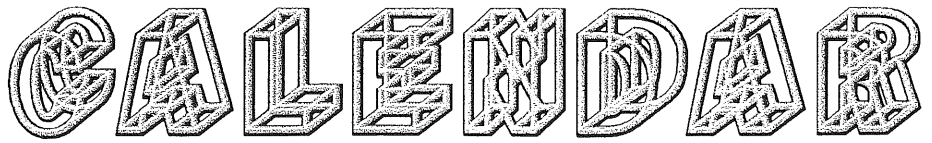
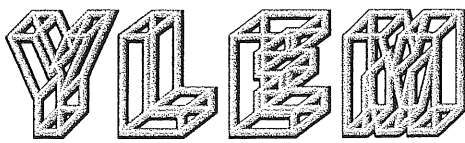
Later in 335 B.C. Aristotle developed a way of looking at the universe that was to last for almost the next 2000 years. His view was shaped by Pythagoras and Plato who held that the heavenly bodies were eternal and divine. He reasoned that the heavens were therefore spherical because a circle having no beginning or end could be thought of as eternal and unchanging. He designed a model of the universe by saying that outside the center sphere of the earth there were fifty-five homocentric celestial spheres in various configurations carrying with them the heavens as they revolved. The last sphere held the fixed stars and was the end of the universe. Ptolemy expanded on this by the construction of

this on epicycle theory to explain the motion of planets and by medieval times of all this was thought to be of clear crystal. It is from this time too that some beautiful circular or mandala-like illustrations of this idea survive.

Across the world in the cosmology of the Hindus, the sleeping god Vishnu dreams the universe. According to this mythology Brahma the creator god sits on a lotus growing from the naval of Vishnu. When Brahma opens his eyes a world comes into being, when he closes his eyes a world goes out of being. When he dies the lotus goes back, and

These are only a few examples of how people have viewed the world in the past. The present era of cosmology began in 1924 when astronomer Edwin Hubble proved through painstaking observation that the whispery bits of spiral light he could see through his telescope were indeed other galaxies. Like the Egyptian artist who chiseled Nut out of stone, artists whose subject is the cosmos reflect the views of our time. As our ideas continue to evolve and change, we realize that the final word has not yet been, and may never be, written.

another lotus is formed and another Brahma. When one universe sinks another rises.



Exhibits

January 1-31

5th National Computer Invitational (Cheney, WA)

Includes work by Ylem member Edith Smith. After showing here, the exhibit will travel. **University Galleries, 140 Art Bldg., Eastern Washington University, Cheney, WA 99004**

January 2 - February 2

Joan Truckenbrod (Portland, OR)

Ylem member Joan Truckenbrod shows her one-of-a-kind tapestries and limited edition Cibachrome prints. **Powell's Technical Bookstore, 33 NW Park Ave., Portland, OR;** info: Daria Barclay, (503) 640-0525

January 3-31

Computer Paintings

Works by Ylem member Mike Mosher. **Mountain View Public Library, 585 Franklin St., Mountain View, CA**

January 3 - February 1

Social Landscapes: She Scapes / Social Scrapes (Chicago)

Computer imaging by Ylem member Joan Truckenbrod. Reception: January 3, 5-8 pm. **Artemisia Gallery, 700 N. Carpenter, Chicago, IL**

Through January 5

Art and Industry: The Jacquard Project

Works by several weavers who were given grants to use an industrial Jacquard programmable loom. **California Crafts Museum, Ghirardelli Square, 900 North Point, San Francisco**

Through January 15

International Miniprint Exhibition

Includes drypoints by Ylem member Edith Smith, some computer art and many interesting prints from the former Eastern Bloc countries. All the prints are less than 36 square inches. **Juniper Gallery, Napa Art Center, 101-K South Coombs St., Napa, CA; (707) 224-8176**

Through February 16

The Theatre in Revolution

Russian avant-garde stage design, 1913-1935. Much amazing art developed in relative isolation right after the Russian Revolution when the U.S. and European armies had the country blockaded. After 1921 these artists influenced the modern movement. **Palace of the Legion of Honor, Lincoln Park, San Francisco**

January 2 - March 30

Pixels at an Exhibition (Portland, OR)

Computer art exhibit by Sister Judith Savard, a Catholic nun and art teacher at Marymount College in New York City. Note: Access to classrooms is limited. **University of Oregon Continuation Center, 720 SW Second St., Portland, OR;** info: Daria Barclay, (503) 640-0525

Classes

January 7

Photoshop Classes

Introduction to a powerful paint and retouch application for the Macintosh. Frequent classes, each two sessions, \$300. January dates: Jan. 7 and 8; Jan. 28 and 29. **Center for Electronic Art, 329 Bryant St., Suite 3-D, San Francisco, CA 94107; (415) 882-7063**

February 15

Advanced Photoshop Class

David Biedny, author of *The Official Adobe Photoshop Handbook*, a superb speaker and instructor, offers deep insights as well as tricks and tips to enhance your productivity and free your creativity. \$85, Afternoon class. Inquire about classes in digital photography, desktop publishing and multimedia also! **Center for Electronic Art, 329 Bryant St., Suite 3-D, San Francisco, CA 94107; (415) 882-7063**

Events

January 8, 8 pm

Ylem Forum: Artists and the Cosmos

Details on page 3.

January 14, 7 pm

Neon Lecture (Washington, DC)

Craig Kraft, neon artist, will give a lecture on his work and on the history of neon art. \$12. **Smithsonian Resident Associates, Smithsonian Institution, Washington, DC; (202) 357-3030**

January 15, 6:30 - 8:30 pm

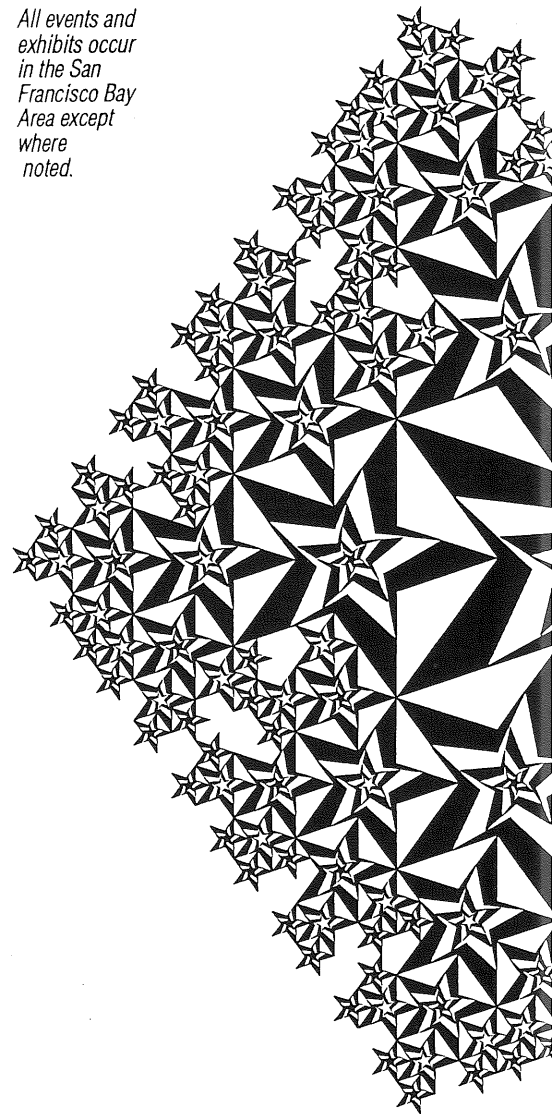
What You Need to Know about Video & Film Copyright Laws (Washington, DC)

Washington Area Lawyers for the Arts workshop. \$10. **Washington Project for the Arts, 400 7th St. NW, Washington, DC 20004; (202) 347-4813**

January 22, 7:30 pm

Ylem Business Meeting, details on page 2.

All events and exhibits occur in the San Francisco Bay Area except where noted.

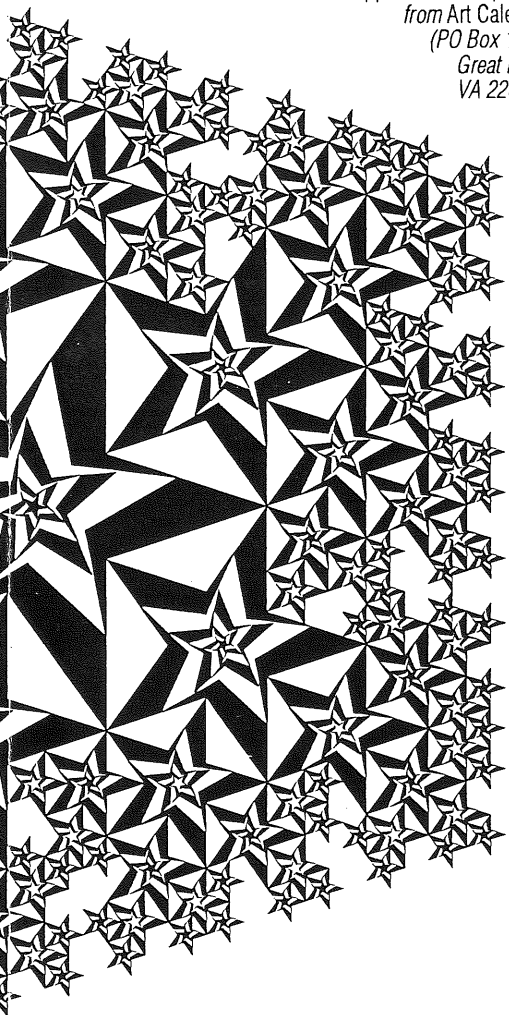


21st Century Odyssey

In conjunction with the "Biosphere 2" project which has received national and international attention, performance artist Barbara T. Smith has embarked on a world odyssey which will result in four to five performances and a collaborative artwork with Biosphere 2's Medical Officer, Dr. Roy L. Walford. He is confined inside the 3½ acre site in Arizona for two years, until Sept. 1993, to conduct this scientific experiment while Smith circles the globe for 18 months, visiting 25 countries. In constant media communication with Walford via telephone, computer and videophone, Smith is visiting urban and rural centers to explore issues of technological and global survival through community structure.

Is your exhibit or event listed here? Send notices to Ylem editor, 967 Moreno Ave, Palo Alto, CA 94303.

Some calendar items reprinted from
FineArts Forum e-mail. Some
Opportunities reprinted
from Art Calendar
(PO Box 1040,
Great Falls,
VA 22066).



Computer-generated stars by Craig Cassin

Meanwhile, Walford is processing his internal dialogue through writing, poetry and artworks. Simultaneously and electronically connected throughout this entire experience, the two will create media documentation and journals to be used in the performances and future exhibitions. The myth and metaphor of pilgrimages and quests, i.e. the tale of Penelope and Odysseus, will play a major role in many of these art works. Smith and Walford are being assisted by Electronic Cafe International of Santa Monica, CA., where their dialogue will be displayed and permanently archived. Donations welcomed! Info: **Barbara T. Smith, 21st Century Odyssey, 801 Coeur D'Alane Ave. Venice, CA 90291**

Needs and Offerings

Pictorial Communication in Virtual and Real Environments

Book edited by Dr. Stephen Ellis et al. Ellis is a NASA researcher and pioneer in this field. 500 pages, 1991. **Taylor and Francis, publisher, 1900 Frost Rd. #101, Bristol, PA 19007; (215) 785-5800**

Virtual Reality: Adventures in Cyberspace

New book by Francis Hamit. Describes present and future applications such as surgery simulation, prototyping and art in virtual reality. \$19.95 plus shipping. **Miller Freeman Books, 600 Harrison St., San Francisco, CA 94107; Visa, MC orders: (408) 848-5296**

Presence

Presence: Teleoperators and Virtual Environments is a new journal offering specialists working in these new fields and interested readers an authoritative forum for the exchange of vital research, ideas, devices, and applications. Published by MIT Press Journals. For charter subscription, write: **MIT Press Journals, 55 Hayward St., Cambridge, MA 02142; (617) 253-2889; fax (617) 258-6779**

NASA Teacher Resource Center

Some free materials, others that can be copied. Publications, videos, audio cassettes, slides, computer programs, reference materials, curricula. Open T-F all day and Sat. until 3 pm. A free educators' newsletter is available on request. **NASA-Ames Research Center Teacher Resources, Attn: DXE:T025/Educational Programs Office, Moffett Field, CA 94035-1000; (415) 604-3939; Audiovisual Materials, (415) 604-6270; fax (415) 604-3445**

The International Association for Astronomical Arts

Artists whose works treat astronomical images and ideas are invited to join the IAAA, a group of 150 artists from 14 countries. Workshops, *Pulsar* bulletin, exhibits. **IAAA, Laurie Ortiz, Pulsar editor, 339 W. University Ave. #A, San Diego, CA 92103; (619) 297-3422**

SIGGRAPH Educators' Newsletter

Editor is Jaquelyn Ford Morie of University of Central Florida. Report what your school is doing with computers, send announcements, stories and interesting art to share with colleagues. Formats: any Mac format, ASCII files on IBM compatibles, even thoughts on paper! Free bi-monthly. **SIGGRAPH Educators' Newsletter, J. F. Morie, 321 Elkhorn Ct., Winter Park, FL 32792; days: (407) 658-5074; evenings: (407) 678-0630; fax (407) 658-5059**

Opportunities

Deadline January 1

International Conference on Cyberspace: Call for Papers

For participation in conference May 29-30 in Montréal, Quebec. Abstracts between 600 and 1000 words, and in no case longer than four pages, including brief optional bio (one paragraph). Accepted abstracts will be published exactly as received, so follow format: 8½ X 11" paper, 1" margin on all sides, one side only, no page numbers. Place title, your name, your affiliation, proposed conference session before your abstract, and please center them. Submit one original and six copies (with diskette version, if possible). **Jean-Claude Guedon, Département de Littérature Comparée, Université de Montréal, PO Box 6128 Branch A, Montréal Quebec H3C 3J7, Canada; (514) 343-6208; fax (514) 343-5683; guedon@ere.umontreal.ca**

Deadline January 1

Art Holographers

GRAM (Groupe de Recherche en Arts Médiatiques) is putting together an international directory of artistic practices that incorporate new technologies. The publication will be divided into five sections and each section will be headed by a member of the group: Art and Computer (Louise Poissant), Art and Holography (Ylem member Georges Dyens), Art and Video (Chantal DuPont), Music and New Technologies (Francis Dhomont), Varied Productions (Hervé Fischer). This illustrated directory will describe techniques and give a brief history with critical essays mentioning the names of significant artists in the field and describing their work. With the intention of establishing the most representative sampling possible, we are now collecting artistic dossiers (CV, slides with their description, as well as a summary of the artistic process). Our research will continue over the next three years. Other tech artists: to be included, write Georges Dyens for whom to contact. **GRAM, Georges M. Dyens, Dept. Arts Plastiques, Université du Québec à Montréal, Case postale 8888, succursale A, Montréal, Québec H3C 3P8, Canada**

Deadline January 15

High Technology/Intimate Concerns

Gallery reviewing digital technology art, still or video. Personal, autobiographical, diaristic themes. Honorarium to each selected artist. Send slides or videos, statement, resumé and SASE to: **Mark Sloan, Brush Art Gallery, St. Lawrence Univ., Canton, NY 13617; (315) 379-5011**

More Opportunities on next page

Deadline January 15

Lite Rail Art Gallery

Reviewing work for 1992-93 exhibits. All media except film/video, performance. Large scale works OK—ceiling is 22' high. Each artist will have 1500 sq. ft. of exhibit space. Send \$10, up to 10 slides, slide list, resumé, other supporting materials, SASE to: **Michael Xepoleas, Lite Rail Gallery, 918 12th St., Sacramento, CA 95814; (916) 441-1013**

Deadline January 15

Birmingham International Educational Film Festival

Cash awards. 1/2" and 16mm. Entry fees \$25 and up. Categories include fine and performing arts. **International Educational Film Festival, PO Box 2641, Birmingham, AL 35291; (205) 933-7299**

Deadline January 15

San Francisco Artspace

Residencies for video artists. Hi-8 video production and post-production program supporting new work in experimental, documentary, narrative, editorial, nonfiction films. Open to all except students. Send one-page project description, project schedule and proposed time length of proposed video; resumé. **San Francisco Artspace, 1286 Folsom St., San Francisco, CA 94103; (415) 626-9100**

Deadline January 20

1992 Human Rights Watch Film Festival

Fictional, documentary, animated, experimental work addressing human rights issues. Film/video. Send preview cassette, resumé, SASmailer. **Bruni Burres, Human Rights Festival, 485 5th Ave., NY, NY 10017; (212) 972-8400**

Deadline January 24

National Endowment for the Arts Photography Grants

NEA, Nancy Hanks Center, 1100 Pennsylvania Ave. NW, Washington, DC 20506; (202) 682-5448

Deadline February 1

Unusual Musical Scores Sought

Ylem member Clifford Pickover writes: "I'm looking for interesting, unusual or artistic musical scores for a book to be published in August. The book has a section on music. Please be sure to send a note of permission to reprint your work. I will give full credit to you in the book." **Clifford A. Pickover, IBM Thomas J. Watson Research Center, Yorktown Heights, NY 10598; (914) 945-3630; fax (914) 945-2141; cliff@watson.ibm.com**

Deadline February 1

Encyclopedia of Living Artists in America, 7th ed.

Artists who submit by Feb. 1 will, if accepted, receive the "early entry special" of 1000 free reprints of their page in the *Seventh Edition*. Includes a section on Computer Fine Art juried by Ylem member Daria Barclay. 4000 complementary copies will be distributed to targeted artworld professionals. Send: Slides (no more than 5), one-page bio, \$25 review fee, separate check (not cashed unless accepted) for \$199 (50% of 1/2 pg. fee) or \$299 (50% of full page fee). Final deadline, March 31. **Laura Davis, ArtNetwork, PO Box 369, Renaissance, CA 95962; (800) 383-0677; (916) 692-1355; fax (916) 692-1370**

Deadline February 1

CINE Video Awards

CINE is a non-profit group that selects outstanding films and videotapes for entry in international film festivals. Amateur and professional awards, formats 3/4", 1/2" and 16mm. In 1990, 80 juries selected 380 entries from 1,225 entries. Winning may qualify a producer to enter the Academy Awards. Fees \$75-125. **Richard Calkins, CINE, 1001 Connecticut NW, Washington, DC 20036; (202) 785-4114**

Deadline February 29

Prix Ars Electronica

Prestigious competition with generous cash prizes in animation, graphics, music and interactive art. Write for prospectus: **ORF-Prix Ars Electronica, Franckstraße 2a, A-4010 Linz, Austria**

The American Dream

Photography and related media, incl. computer. What does America look like, its homes, its built-up landscape, its symbols and pop icons? Deadline unclear, but show opens March 7. **Center for Photography at Woodstock, 59 Tinker St., Woodstock, NY 12498; (914) 679-9957**

The Geometry Center

The National Science and Technology Research Center for Computation and Visualization of Geometric Structures at the University of Minnesota aims to support and promote mathematics and computer science research; software, animation, and tool development and production; and education and communication of mathematics at all levels. 14 remote sites and links with other math and computer institutes. **Geometry Center, 1300 S. Second St., Minneapolis, MN 55454; (612) 626-0888; fax (612) 626-7131; admin@geom.umn.edu**

Dr. Clifford Pickover's fractal art was featured in the November 23rd *Science News* article, "Math on the Edge," and **Bruce Beasley's** sculptural works and bathyspheres in Lucite plastic were shown on the Smithsonian Institution's *Invention* series on the Discovery Channel in October... *Christopher Cumulonibus*, a HyperCard-assisted performance piece by **Mike Mosher** treated the audience at the Small Computer in the Arts Conference in Philadelphia to 500 seconds of original rock music and narrative with projected images of 50 Macintosh painting-collages alluding to 500 years of American history. He spoke about it on one of the panels of the conference. Next, he was part of the poster session of ACM Hypertext '91 in San Antonio, TX in December.

Beacon Street Gallery/Performance Space

2-D and 3-D media, film/video, performance, installation, dance, new music, readings, interdisciplinary. 1,500 sq. ft., 20' ceilings, 175-seat theatre. 8-10 exhibits per year. Insurance. Open to U.S. artists. **Beacon Street Gallery/Performance Space, 4520 N. Beacon St., Chicago, IL 60640; (312) 784-2310**

C.S.P.S.

A new artist-run center in a century-old social hall. Two galleries suitable for exhibits and performances. Theatre under construction. Individuals and groups can apply. Categories include contemporary issues, exploration of new forms. Short-term residencies also. Proposal should include one-page project description, budget and schedule (including how it might be financed), slides/video or supporting materials, SASE. **C.S.P.S., 1103 Third St. SE, Cedar Rapids, IA 52401; (319) 364-1580**

Center for Contemporary Arts

2-D and 3-D media, film/video, performance, installation, dance, new music, readings, interdisciplinary. Four galleries, 3,000 sq. ft. all together, 23' ceiling. Residencies, access to film/video eqmt. Send proposal, slides or video, resumé, SASE. **Center for Contemporary Arts, 291 E. Barcelona Rd., Santa Fé, NM 87501; (505) 982-1338**

Bridge Center for Contemporary Art

Contemporary 2-D and 3-D media, film/video, performance, installation, new music. 3,500 sq. ft., 16' ceiling. Send proposal, slides or video, resumé, SASE. **Bridge Center for Contemporary Art, 127 Pioneer Plaza Annex, El Paso, TX 79901; (915) 532-6707**

Planetary Consciousness and the Imperative of Space Exploration

by Paul Hartal

We have always been space travellers. Our spaceship, the earth, travels at the speed of 30 km per second in its movement around the sun. Gazing at the stars strewn over the depth of the universe is a peculiar experience which involves interaction between the infinitely large physical cosmos and the infinitely small Self of the individual psyche. The inner reaches of outer space interact with the outer reaches of inner space.

In the *Prolegomena to Any Future Metaphysic* Immanuel Kant posed the question: "How is it that in this space here we can make judgements that we know with absolute certainty will be

On July 20, 1969 Neil Armstrong landed the Apollo 2 on the moon. It got there by *a priori* calculations of the trajectory, but the lunar dust had to be experienced *a posteriori*, first-hand.

Humans are born with the impulse to explore, to learn the secrets of nature and the cosmos. The areas of exploration are innumerable, even in art, as the artist explores ways to change our perception of the world. It is an impulse shared by both artists and scientists. Exploration is a never ending process:

"We shall not cease from exploration
And the end of all our exploring

progress one makes there is always the thrill of just beginning."

—Robert Goddard, father of liquid fuel rocketry

"It's human nature to stretch, to go, to see, to understand. Exploration is not a choice, really, it's an imperative."

—Apollo Astronaut Michael Collins

Indeed, space exploration is a spiritual mission. It transcends technology. The artist is its interpreter and communicator. As a therapist of social ills, the artist is concerned with human values and ethics.

On the way to the moon in 1969 the Apollo astronauts had already noticed stunning effects of pollution on the blue planet. The technology that produced their marvelous machines also left its ugly marks on the earth, the detritus of prolonged industrial shortsightedness. We now know that pollution knows no national borders and has long-lasting effects. Witness radiation from the Chernobyl nuclear reactor accident of 1986 and the continuing depletion of the ozone layer. The role of both space exploration and art should be to draw public attention to the grave severity of the eco-crisis. One of the pivotal roles of space activity ought to be monitoring pollution. In order to save the earth and to survive as a species we must consume less and change our lifestyle: The artist must be a catalyst in this necessary cultural evolution of mankind.

Today the artist is a space explorer, putting objects into space. This began at the same time as conceptual art. In 1968, Lowry Burgess began to work on his *Quiet Axis*, and in 1979 Pierre Comte started to design models of huge inflating art satellites (ARSAT). In 1984, Arthur Woods initiated his pioneering *Orbiting Unification Ring Satellite (OURS)* project. For the year 2000 an enormous OURS is scheduled to be put into orbit. The one-kilometer-wide inflating torus is designed to turn eventually into a solar sailing ring dedicated to peace, wholeness and unity. It shows how art can enhance planetary consciousness.



"A priori," pen and ink, by Paul Hartal

valid in that space there?" His answer was that in we are born with a knowledge of the laws of space. We know them *a priori* because they are the laws of the mind. Physical and mental space interpenetrate each other. In a sense they are the same.

Will be to arrive where we started
And know the place for the first time."

—T.S. Elliot, *Little Gidding*

"There can be no thought of finishing. For aiming at the stars both literally and figuratively is a problem to occupy generations so that no matter what

Please send a
**membership
application** and
sample newsletter to
(me) (my friends) at:

NAME _____

ADDRESS _____

☐ Sample issue &
application only (free) ☐ I enclose \$_____ for membership (see above)

Yearly membership rates:

U.S. Individual **\$30**

U.S. Institution **\$45**

U.S. Student or Senior **\$20**

Canada/Mexico add **5 US\$** to U.S. rates; all
other countries add **15 US\$** to U.S. rates.

Membership includes 12 issues of the *Ylem
Newsletter* & listing in the *Artists Using
Science and Technology Directory* which
you will receive in the Autumn.

**MAILING LABELS
OF YLEM MEMBERS**

(about 250 artists &
art enthusiasts) are
available to Ylem
members for \$20.
Info: Fred Stitt,
(415) 254-0639;
or send \$20 with
your request to
address below.

Ylem is a non-profit, networking organization.

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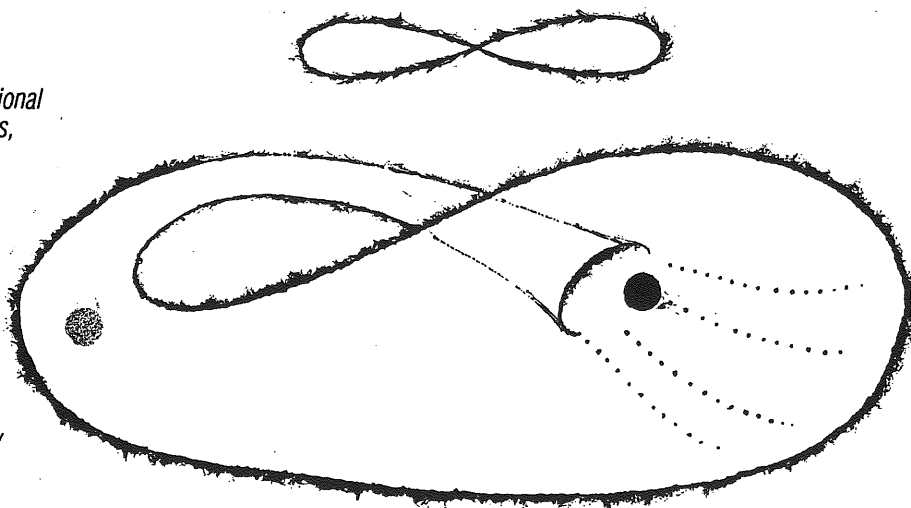
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"Infinity in a Bottle," drawing by Myrrh

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ISSN 1057-2031

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**January
Newsletter**

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